CLAIMS

1. A method of treatment of a neurological or neurodegenerative condition involving inflammation, comprising the step of administering an effective amount of an inhibitor of C5a receptor to a subject in need of such treatment.

2. A method according to claim 1, in which the condition is one associated with increased activity of the complement pathway.

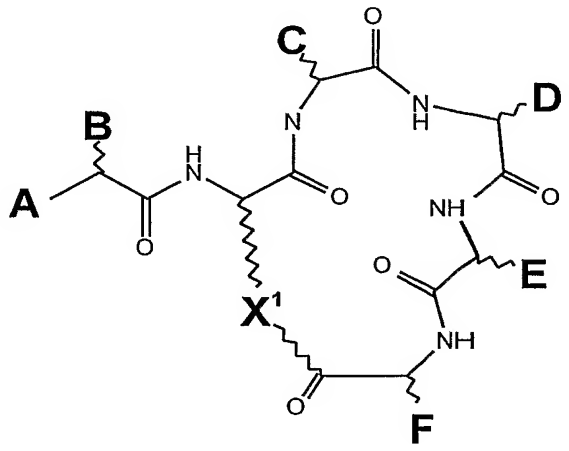
3. A method according to claim 1 or claim 2, in which

the inhibitor is a compound which

(a) is an antagonist of the C5a receptor,

(b) has substantially no agonist activity, and

(c) is a cyclic peptide or peptidomimetic compound of Formula I



where A is H, alkyl, aryl, NH_2, NH-alkyl, $N(alkyl)_2$, NH-aryl, NH-acyl, NH-benzoyl, $NHSO_3$, $NHSO_2$-alkyl, $NHSO_2$-aryl, OH, O-alkyl, or O-aryl;

B is an alkyl, aryl, phenyl, benzyl, naphthyl or indole group, or the side chain of a D- or L-amino acid, but is not the side chain of glycine, D-phenylalanine, L-homophenylalanine, L-tryptophan, L-homotryptophan, L-tyrosine, or L-homotyrosine;

C is the side chain of a D-, L- or homo-amino acid, but is not the side chain of isoleucine, phenylalanine, or cyclohexylalanine;

D is the side chain of a neutral D-amino acid, but is not the side chain of glycine or D-alanine, a bulky planar side chain, or a bulky charged side chain;

E is a bulky substituent, but is not the side chain of D-tryptophan, L-N-methyltryptophan, L-homophenylalanine, L-2-naphthyl L-etrahydroisoquinoline, L-cyclohexylalanine, D-leucine, L-fluorenylalanine, or L-histidine;

F is the side chain of L-arginine, L-homoarginine, L-citrulline, or L-canavanine, or a bioisostere thereof; and

X is $-(CH_2)_nNH-$ or $(CH_2)_n-S-$, where n is an integer of from 1 to 4; $-(CH_2)_2O-$; $-(CH_2)_3O-$; $-(CH_2)_3-$; $-(CH_2)_4-$; $-CH_2COCHRNH-$; or $-CH_2-CHCOCHRNH-$, where R is the side chain of any common or uncommon amino acid.

4. A method according to claim 3, in which n is 2 or 3.

5. A method according to claim 3 or claim 4, in which A is an acetamide group, an aminomethyl group, or a substituted or unsubstituted sulphonamide group.

6. A method according to claim 5, in which A is a substituted sulphonamide, and the substituent is an alkyl chain of 1 to 6 carbon atoms, or a phenyl or toluyl group.

7. A method according to claim 6, in which the substituent is an alkyl chain of 1 to 4 carbon atoms.

8. A method according to any one of claims 3 to 7, in which B is the side chain of L-phenylalanine or L-phenylglycine.

9. A method according to any one of claims 3 to 8, in which C is the side chain of glycine, alanine, leucine, valine, proline, hydroxyproline, or thioproline.

10. A method according to any one of claims 3 to 9, in which D is the side chain of D-Leucine, D-homoleucine, D-cyclohexylalanine, D-homocyclohexylalanine, D-valine, D-

norleucine, D-homo-norleucine, D-phenylalanine, D-tetrahydroisoquinoline, D-glutamine, D-glutamate, or D-tyrosine.

11. A method according to any one of claims 3 to 10, in which E is the side chain of an amino acid selected from the group consisting of L-phenylalanine, L-tryptophan and L-homotryptophan, or is L-1-napthyl or L-3-benzothienyl alanine.

12. A method according to any one of claims 1 to 11, in which the inhibitor is a compound which has antagonist activity against C5aR, and has no C5a agonist activity.

13. A method according to any one of claims 1 to 12, in which the inhibitor has potent antagonist activity at sub-micromolar concentrations.

14. A method according to any one of claims 1 to 13, in which the compound has a receptor affinity IC50< 25μM, and an antagonist potency IC50< 1μM.

15. A method according to any one of claims 1 to 14, in which the compound is selected from the group consisting of compounds **1** to **6**, **10** to **15**, **17**, **19**, **20**, **22**, **25**, **26**, **28**, **30**, **31**, **33** to **37**, **39** to **45**, **47** to **50**, **52** to **58** and **60** to **70** described in PCT/AU02/01427.

16. A method according to claim 14, in which the compound is PMX53 (AcF[OP-DCha-WR]), PMX205(HC-[OPdChaWR]), PMX273 (AcF[OP-DPhe-WR]), PMX201 AcF[OP-DCha-WCit]) or PMX218 HC-[OPdPheWR]).

17. A method according to claim 16, in which the compound is PMX205 or PMX53.

18. A method according to any one of claims 1 to 14, in which the compound is able to cross the blood-brain barrier.

19. A method according to any one of claims 1 to 18, in which the condition is a neurodegenerative condition associated with striatal lesions and/or polyglutamine repeats.

20. A method according to claim 19, in which the condition is selected from the group consisting of

Huntington's disease, spinal and bulbar muscular atrophy, spinocerebellar ataxia, dentatorubral pallidoluysian atrophy, striatal injury, and acute striatal necrosis associated with Type I glutaric aciduria.

21. A method according to any one of claims 1 to 18, in which the condition is a motor neuron disease.

22. A method according to claim 20, in whichthe condition is selected from the group consisting of amyotrophic lateral sclerosis; progressive bulbar palsy; spinal muscular atrophy, including infantile and juvenile types; Kugelberg-Welander syndrome; Duchenne's paralysis; Werdnig-Hoffmann disease; and benign focal amyotrophy.

23. A method according to any one of claims 1 to 18, in which the condition is a disorder involving neurodegeneration and/or ischemic damage.

24. A method according to claim 23, in which the condition is selected from the group consisting of Parkinson's disease, Alzheimer's disease, Wilson's disease, and pathologies arising as sequelae of cerebral ischaemia and other neurological disorders, including diseases associated with dysfunction of the blood-brain barrier.

25. A method according to any one of claims 1 to 18, in which the condition is a movement disorder.

26. A method according to claim 23, in whichthe condition is selected from the group consisting of progressive supranuclear palsy, Huntington's disease, multiple system atrophy, corticobasal degeneration, Wilson's disease, Hallervorden—Spatz disease (neurodegeneration with brain iron accumulation), progressive pallidal atrophy, Dopa-responsive dystonia-Parkinsonism, spasticity, Alzheimer's disease and other disorders of the basal ganglia which result in abnormal movement or posture.

27. A method according to any one of claims 1 to 26, in which the inhibitor is used in conjunction with one or more other agents for the treatment of the neurological or

neurodegenerative condition.

28. A method according to claim 27, in which the other agent is infliximab or is an inhibitor of C3a.

29. Use of an inhibitor of C5a receptor in the manufacture of a medicament for the treatment of a neurological or neurodegenerative condition involving inflammation.

30. Use according to claim 29, in which the condition is one associated with increased activity of the complement pathway.

31. Use according to claim 29 or claim 30, in which the compound is as defined in any one of claims 3 to 18.